

Sherman County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/30/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 12 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Sherman County economy.¹

These 12 sectors have a total direct output of approximately **\$211.0 million** and support **469.7 jobs** in Sherman County. Running the model for all 12 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Sherman County Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	469.7	11.66%	\$38,697,856	16.76%	\$211,032,759	91.41%
Indirect Effect	247.6	6.15%	\$19,607,621	8.49%	\$38,621,574	16.73%
Induced Effect	155.2	3.85%	\$8,234,709	3.57%	\$15,527,262	6.73%
Total Effect	872.4	21.66%	\$66,540,186	28.82%	\$265,181,594	114.87%

As shown in the above table, agriculture, food, and food processing sectors support **872.4 jobs**, or **21.66%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$265.2 million**, roughly **114.87% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 12 agriculture, food, and food processing sectors is approximately **\$66.5 million**, or **28.82% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **28.82% of the total economy**.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3A3KB33&Itemid=70

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **190.2 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Sherman County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	190.2	\$37,959,905
Grain farming	179.4	\$101,181,162
Wholesale trade	86.5	\$18,998,218
All other crop farming	36.1	\$4,243,749
Real estate	31.4	\$1,917,453
Truck transportation	29.5	\$5,485,282
Spice and extract manufacturing	27.4	\$17,506,553
Monetary authorities and depository credit intermediation	21.9	\$4,020,387
Animal production, except cattle and poultry and eggs	16.5	\$2,917,902
Limited-service restaurants	16.0	\$1,098,116

The grain farming sector directly contributes approximately **\$101.2 million** to the Sherman County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Grain farming	179.4	\$101,181,162
Soybean and other oilseed processing	7.5	\$39,170,713
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	190.2	\$37,959,905
Wholesale trade	86.5	\$18,998,218
Spice and extract manufacturing	27.4	\$17,506,553
Oilseed farming	3.9	\$6,964,102
Truck transportation	29.5	\$5,485,282
All other crop farming	36.1	\$4,243,749
Monetary authorities and depository credit intermediation	21.9	\$4,020,387
Owner-occupied dwellings	0.0	\$3,413,180

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Sherman County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	3.9	\$6,964,102.27
Grain farming	179.4	\$101,181,159.97
All other crop farming	36.1	\$4,243,748.66
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	190.2	\$37,959,903.72
Poultry and egg production	0.4	\$301,642.27
Animal production, except cattle and poultry and eggs	16.5	\$2,917,901.52
Commercial logging	0.9	\$34,151.05
Soybean and other oilseed processing	7.5	\$39,170,715.33
Bread and bakery product, except frozen, manufacturing	4.2	\$478,905.38
Frozen cakes and other pastries manufacturing	0.3	\$38,723.47
Spice and extract manufacturing	27.4	\$17,506,551.74
Veterinary services	3.0	\$235,250.61

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Sherman County, the retail sector was omitted.